

## New 'Smart Bandage' Doubles Healing Rate of Wounds

**P**rof. Sue Brauhn will deliver a talk in Boston later this year in which she will describe how she and Prof. Kenneth Marx have found a way to use growth factors produced by human cells to create a dressing that can double the healing rate of a wound.

Brauhn, of the Biological Sciences Department, and Marx, of the Center for Intelligent Biomaterials in the Chemistry Department, have been collaborating on this research for more than two years.

They call their discovery a Smart Bandage and they're exploring ways to commercialize it.

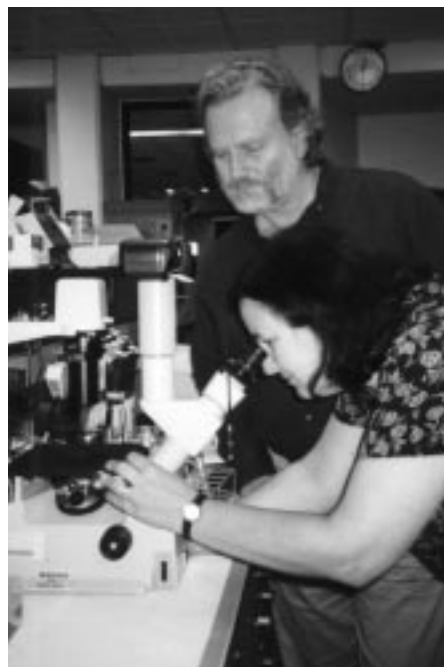
Brauhn will explain their research when she addresses an audience at the 2003 Materials Research Society meeting at the Hynes Convention Center in December. The meeting will bring together more than 4,000 scientists and engineers involved in material research.

Initially supported by money from a National Institutes of Health (NIH) exploratory grant and from Chancellor William T. Hogan's discretionary fund, the work has more recently been awarded a grant from the federal Defense Advanced Research Projects Agency (DARPA), which, Brauhn and Marx say, "looks for the next 'big thing' across the board—from medicine to missiles."

Brauhn says, "This invention is based on our understanding that cells of the body need to create a 'basement membrane' to stay alive." This membrane, composed of protein, resides beneath the cell—thus the "basement" name.

Brauhn likens the membrane to a shag rug to which the cell attaches itself with receptors. Her analogy is that the cell is like a spider and the receptors are "hairy spider legs."

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▲ **Profs. Sue Brauhn and Kenneth Marx** have found a way to use growth factors produced by human cells to create a bandage that can double the healing rate of a wound.

## Morning News Program Launched on WJUL

**T**he region's new morning radio news program, "Sunrise," began airing on WJUL-FM (91.5) on Monday, Sept. 29. Produced by the Lowell Sun and Lowell Community Broadcasting in partnership with UML, with underwriting from area businesses and institutions, the program is broadcast from 5 to 10 a.m. on weekdays. The fast-paced mix of news, weather, traffic, and sports reports is combined with features on local newsmakers, cultural events, campus people and activity, and more.

"The new radio program offers an opportunity to serve the region in a new way," says Chancellor William T. Hogan.

Among the contributors to "Sunrise" is one of the area's long-time broadcasters and journalists, Bob Ellis, now a member of UML's Communications and Marketing staff. Among Ellis' first week reports were interviews with Prof. Hilary Holladay about the recent Kerouac Conference and Julie Villareal and Dave Turcott of the Center for Family, Work, and Community, project managers for one of the Center's innovative recycling efforts.

Speaking for the *Sun*, editor Kevin G. Keane in an opening morning interview stressed his commitment to work with UML students and said he looked forward to their participation through internships and other roles.

## Peru Project Celebrates 50

**U**Mass Lowell's Peru Project passed a milestone of sorts this year, having installed 50 renewable energy systems in 16 remote villages in the high Andes mountains.



▲ **A local youngster** tries the water with UMass Lowell students Lara Thompson and Stacy Bletsis, who designed the sand filtration and water distribution system.

Using solar or water power to generate electricity in places barely accessible by truck or mule, teams of students and faculty have installed emergency radios and vaccine refrigerators in clinics; placed laptop computers in schools and light fixtures in churches, town halls and village squares; and set up pumps for water distribution systems. Project areas have expanded, with solar water heating, aquaculture projects and a sand filtration system for water purification.

July 2003 marked the thirteenth time that UMass Lowell teams have traveled to Peru on an international service project and, in the process, have developed their own professional and personal skills. Besides the technically skilled participants, nursing students have also joined the teams.

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## Brooks Automation Selects Lowell for Switch to C++

**B**rooks Automation, Inc. is one step closer to switching to C++ programming after 15 employees graduated from a customized C++ certificate provided onsite in Chelmsford by UMass Lowell. Currently, the company uses C programming, a procedural language, in developing their embedded software and would like to shift to C++ programming, an object-oriented language. Brooks, which delivers manufacturing automation solutions for semiconductor, precision electronics and other industries awarded the training contract to

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## Take Note

### No One Has Ever Seen What Smith Will Discuss on Oct. 16

No one has ever seen an isolated quark, and there is good reason to think that no one ever will.

Regardless, Dr. Timothy Paul Smith will be on campus this month to discuss how we can “see” things that are 100,000 times smaller than an atom.

Smith, who earned his master’s degree and doctorate at ULowell and is now an assistant research professor at Dartmouth College, will be the featured speaker at a Lowell Regional Physics Alliance event on Thursday, Oct. 16, at 3 p.m. in Olney 218. His topic will be “Hidden Worlds: Hunting for Quarks in Ordinary Matter.”

His presentation will be followed by a raffle and five-minute shared physics demonstrations.

For further information, contact Prof. David Pullen at ext. 3765 or e-mail [Arthur\\_Mittler@uml.edu](mailto:Arthur_Mittler@uml.edu)

### From Cambodian Killing Fields to Lowell, ‘The Flute Player’ Plays On

Like Wladyslaw Szpilman in the Holocaust film, “The Pianist,” Lowell’s own Arn Chorn-Pond lived through unimaginable horrors, in his case during the Cambodian genocide. After enduring persecution in his native country and emerging from a Thai refugee camp years later, Chorn-Pond came to the U.S. and recognized that his music—traditional Cambodian flute-playing—could sustain him. A PBS film about his life, “The Flute Player,” will be screened in O’Leary 222, UML South, on Tuesday, Oct. 28th, at 7 p.m.

Discussion topics include: “What do such experiences mean for the entire Cambodian-American community?” “From the Holocaust to ethnic cleansing, others also have horrific community memories. What does it mean to ‘never forget?’”

Chorn-Pond, Jocelyn Glatzer, the filmmaker, and community psychologist Prof. Linda Silka will be on hand to discuss “community memory” immediately after the film.

### Author Raymond Mungo To Recall the Tumultuous Sixties in Oct. 20 Talk

Author, editor and Lawrence native Raymond Mungo will describe the heady days of 1960s counterculture activists in a talk titled, “Famous Long Ago: Eyewitness on the Sixties,” on Monday, Oct. 20, at 7 p.m., in the

O’Leary Library auditorium, Room 222, on UML South. Mungo’s memoir *Famous Long Ago* is an underground classic that is now being made into a film. His fellow 1960s activist, poet Veronica Porche of Vermont, will join the California-based author in the program. The University community is invited for light refreshments before the program, sponsored by the University Library.

For information on the program or to obtain copies of the complete Parker Lectures schedule, contact Paul Marion, director of Community Services, at x3107 or [Paul\\_Marion@uml.edu](mailto:Paul_Marion@uml.edu).

### Youth Programs in Lowell Face Budget Cuts

The Center for Family, Work and Community (CFWC) is sponsoring a breakfast forum on Tuesday, Oct. 14, 7:45 - 9 a.m., in the MIL Conference Center at Wannalancit Mills.

A summer research project into the effects of budget cuts on youth service agencies in the city will be the focus of the meeting. Project leaders will present the report, “Lowell’s Youth Programs: Can They Survive?” and will encourage participants to brainstorm possible responses to the funding crisis.

The research project paired four recent high school graduates drawn from the River Ambassadors Program with four UMass Lowell graduate students. They interviewed directors of 14 agencies in Lowell, asking about federal and state funding, effects of cuts such as layoffs and program cutbacks, and how the University might be of help.

For more information, contact Dan Toomey at ext. 3115, or [dan\\_toomey@uml.edu](mailto:dan_toomey@uml.edu).

### Tsongas Center Leads Women’s History Conference

The Tsongas Industrial History Center is leading “Gender, Work and Family,” the 15th Lowell Conference on Women’s History.

The conference will be held Friday, Nov. 7, at the Tsongas Center in the Boott Cotton Mills of the Lowell National Historical Park.

This year’s topic explores the significance of gender throughout American history, with a special focus on the historic places where men and women worked to earn a living and make a home for their families. Follow-up visits will be offered to museums and historic houses that provide curriculum-based programs for school classes, as well as curriculum materials.

To register by Oct. 22, contact Ellen Anstey, 978-970-5101, or [ellen\\_anstey@uml.edu](mailto:ellen_anstey@uml.edu).

### University to Host Hunger Homeless Week Forum

A Greater Lowell Hunger Homeless Week forum entitled, “Housing and Homelessness: Policy and Vision,” will be held on Oct. 21, 12:30-2:30 p.m. in Coburn 205. The guest speakers will be Massachusetts State Sen. Steve Panagiotakis, and Fran Czajkowski, executive director of the Homeless Empowerment Project, publisher of the very successful biweekly Boston-Cambridge newspaper, *Spare Change News*, written by and for the homeless.

The forum is being presented by the University’s Office of Community Service and the Sociology Department. For information, call Dr. Mark Levine, director of the University’s Office of Community Service, ext. 3219.

## Hundreds Flock to Library’s Used Book Sale

Offer cheap books and they will come.

The library proved that adage in September when its first-ever used book sale attracted hundreds of booklovers eager to take advantage of the great prices and extensive selection. Sponsored by the newly formed Friends of UMass Lowell Library, the sale’s proceeds will be used to fund special projects and events, such as authors’ visits and book signings.

“It was a great success. We had lots and lots of people, both from the University and the Lowell community. It was a constant stream,” Marion Muskiewicz, head of library public services, said of the two-day sale that was held Sept. 19 and 20.

Even though Patricia Noreau, director of libraries, saw the event as a “community service,” rather than a money-maker, it still raised over \$1,000—which represents thousands of book sales at 25 cents for a paperback and \$1 for a hardcover. Left-over books were still being sold a week after the event, with plans to donate the rest to Hands Across the Waters, a nonprofit group that provides materials to Third World countries.

Muskiewicz said publications representing all genres, from children’s books to mystery novels to educational journals, were carted out by eager bibliophiles by the boxload. One college student was fortunate to locate a required textbook among the pile—a priceless treasure for a young person on a budget.

And the library did not have to clear out its own shelves to provide the books, as all the materials were donated by faculty and staff. In fact, the Library added 500 books to its volumes from the donated items.

Muskiewicz noted that the success of the event was the result of dedicated library staffers, who volunteered their time to work on Saturday, and, in particular, Donna Stanford, who sorted the books for months preceding the sale.

The event also provided O’Leary Library with the opportunity to show off its recent renovations and addition—including the new home of the College of Education—as an open house coincided with the first day of the sale.

During the two-day event, the Friends of the Library enrolled 20 new members. Those seeking to join the group, which is currently comprised of members of the faculty, staff, community and alumni, should contact Ellen Keane at ext. 4594 or [Ellen\\_Keane@uml.edu](mailto:Ellen_Keane@uml.edu). Dues are \$25 per person and \$10 for a student or senior.



### Workshop Addresses Diverse Styles of Learning

Chandrika Sharma, Coordinator of Disability Services, joined Profs. Joyce Gibson and Regina Panasuk, both of the Graduate School of Education, at the Third Annual TA/RA Workshop. Sharma, who coordinated the event, said that 80 UMass Lowell research and teaching assistants participated in the workshop on issues of teaching to diverse learning styles.



## Cumnock Projects Scheduled for Completion by Semester's End

**T**he bamboo flooring that was installed this summer in the Trustees room and the adjoining lobby on the second floor of Cumnock Hall will be extended later this year to the surrounding offices.

Diana Prideaux-Brune, special assistant for Economic Development, says the flooring, installed prior to the meeting of the UMass Board of Trustees, was purchased "at a drastically reduced price." At the same time, the walls were repainted, new lights were installed in the lobby, and new doors were hung at the stairway entrance.

In addition to being attractive, the cost of bamboo flooring is reasonable and the surface is easy to maintain, Prideaux-Brune says.

Work on the offices will be done during the Christmas holiday period. While the furniture is moved out to install the floors, the walls will be painted.

"It's more cost effective to do it all at once," she says. "We'll review all the pricing options and decide what is most affordable."

Meanwhile, the temporary tiles on Cumnock's main lobby floor will be replaced with permanent granite tiles before the end of the year. The contractor was unable to complete the tile work on time in the summer, so he installed temporary tiles—mostly around the border of the lobby—pending arrival of the permanent ones that are being shipped from Brazil.

Because the work was not completed within the time specified, the contractor will replace the temporary tiles at his own expense.

Similarly, a project completed earlier this year on UML South is being re-done by the contractor on that job. In that case, the job called for pouring a concrete surface at a bus stop turnout area on Broadway opposite Coburn Hall.

"The contractor didn't reinforce the concrete as specified in the contract and we knew it would deteriorate over time," Prideaux-Brune says. "So the contractor is tearing it up and replacing it at his own expense."

## UMass Lowell Project Will be a Model for Federal, State Agencies

**F**or much of the past three years, since the approval of an EPA grant in early 2000, a broad-based team from the Olney science building—deans, faculty, students and staff—have been at work on a project that could soon be the benchmark in state, federal and municipal agencies nationwide.

The goal of the project, as defined by the Environmental Protection Agency three years ago, was the development of an environmental management system (EMS) that would enable the compliance of any building or agency with the EPA's and state agencies' environmental standards. One result of this process was the development of a software system—the EPA-EMS/ISO 14001 Document Development, Management and Control System—that recently won copyright approval from the U.S. government, and will be showcased this month, for the first time, at an environmental trade show in Worcester.

The Olney building, having many of the typical environmental properties and hazards, was chosen as a model in which to develop the system, says Environmental Health and Safety (EHS) Director Rich Lemoine.

When the grant was approved, says Lemoine, the team was brought together. "There were about 30 people originally, though the number went up and down—students, faculty, clerical staff, representatives from just about every group that used the building as the project progressed. They sat down and they identified potential problem areas—air quality, the purchase and handling of chemicals, lab use, recycling—anything that might have an environmental impact. And once they had identified these, the next step was to set priorities and objectives. And then to coordinate the workings of programs that would achieve regulatory compliance based on the efforts of the team working together."

Much of the challenge, Lemoine says, was in controlling all the documents generated—policies, memos, objectives, procedures, work instructions, minutes, annual calendars, problem descriptions—and making

them auditable. The University administration, as well as the Toxics Use Reduction Institute (TURI), was behind much of this effort; a graduate student, Mikurj Joshi, was also brought on board to assist. The team's findings, once in place, were then submitted to a committee of University leaders (representatives of the Provost's and Chancellor's offices, some financial advisors), who then signed off on the final product. The software system then went to the United States Copyright Office for approval in April of this year.

"What we recognized," says Lemoine, "is that the worker who's been on the job 25 or 30 years is apt to understand more about the environmental problems and solutions of his or her department than the manager (s)he works for. Our EMS is a partici-

patory style of management, an alternative to the traditional 'my way or the highway' approach that day-to-day business is generally built on. It depends, really, on a management model in which the workers create their own solutions—which changes the work culture and priorities to the benefit of everyone."

The Olney project now has moved into what Lemoine calls the "auditing cycle"—the all-important certifica-

tion process which, ideally, concludes with the internationally-recognized sanction of an ISO 14001 registration. This, in turn, will establish UMass Lowell as an international agency with ISO certification in managing its environment and labs.

The EPA, says Lemoine, has already agreed to allow its Region One (Boston) office to serve as a pilot, as has the Massachusetts Department of Environmental Protection.

"Those are critical endorsements," he says. "And with the exposure we'll receive at the trade show in Worcester"—together with the copyright—"you could see our software in use at many state, federal or municipal agencies in the very near future."

—GRD



▲ Environmental Health and Safety (EHS) Director Rich Lemoine.

## Local Educators Ready to Teach with Technology Thanks to GSE Grant

**W**ith the help of the Graduate School of Education (GSE), PowerPoint presentations, Internet research and computer mapping are just a few examples of ways teachers are using technology to engage and excite students. Teachers from Chelmsford, Lowell and Methuen who participated in the UMass Lowell "Ready to Teach" program, the federally funded Preparing Tomorrow's Teachers to Use Technology Grant (PT3), demonstrated how they have incorporated various software, the Internet and other technologies into their language arts, social studies and science curriculums.

Through the "Ready to Teach" program, teachers from the partner school districts

learned about ways to integrate technology into the classroom and in turn mentor GSE students. "Ready to Teach" was funded by a federal Department of Education grant over three years totaling more than \$1 million to better prepare graduate students to teach in Internet classrooms. GSE graduate students and faculty participate in the teacher teams.



▲ Faculty and staff who implemented the Preparing Tomorrow's Teachers to Use Technology Grant (PT3) gathered at a recent demonstration of final "Ready to Teach" projects by the Chelmsford, Methuen and Lowell partner schools. From left, Judith Boccia, director of the Center for Field Services and Studies (CFSS); Betsy Murphy, Graduate School of Education student; Marcia Cowdrey, eighth grade teacher at the Wang School in Lowell; Marjorie Dennis, PT3 grant coordinator, CFSS; Patricia Fontaine, lecturer, CFSS; John Wren, PT3 software multimedia support, CFSS.



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## Peru Project Celebrates 50

Mechanical engineering Prof. John Duffy, coordinator of the graduate program in energy engineering, leads two trips each year. He is struck by the commitment that students bring to the task of helping others.

"It's impressive to see that the students can make such a difference," he says, "supplying villagers with clean water, helping them survive."

Providing clean water to the village of Huayash was the project Stacy Bletsis, recent graduate in mechanical engineering, worked on. For her capstone design project, Bletsis, along with partners Lara Thompson and Matt Johnson, designed a solar water pump and distribution system for the village and a sand filtration system to purify the water.

"Before, these people had to get water in buckets from the river," says Bletsis, who calls the project the best thing she's ever done, despite the difficult working conditions and high altitude.

Her experience confirms Duffy's emphasis on the value of service learning, of skills applied to solve real world problems as part of course work.

"Here, if you forget something, you just go to Home Depot and get what you need," says Bletsis. "There, you have to plan everything out. Either you have it or you don't. You improvise or you have to leave it for the next trip."

This was the second trip that Duffy included nursing students on the team—Renee Michaud and Colleen Sousa. They completed nutrition and health surveys in hospitals in the larger towns and clinics in remote villages. To reach Chipre, for example, they had to walk many



▲ UMass Lowell nursing students Renee Michaud, left, and Colleen Sousa, right, are helped by translator Liz Purchia, a student at Hamilton College, New York.



▲ A local man helps install solar photovoltaic cells on a clinic roof. The villagers contribute many skills as they also learn to install and maintain equipment.

hours, rising before dawn and climbing several thousand feet in altitude.

Duffy is particularly proud of projects that have involved extensive cooperation with local people, who are resourceful and creative in getting things done. In Quian, for example, townspeople had completed a water purification system and a water supply system from a spring a mile away after the team left in January. But one of the first UMass Lowell improvements is still one of the most important.

"The feedback from clinics tells us that the radios may be the most useful part of our systems," says Duffy. "They save many lives." Using radios, the villagers can communicate with doctors at the hospitals in town.

The newest undertaking is a cooperative venture with local farmers to start aquaculture systems with trout in one village and crayfish in another. This should be self-sustaining and improve village nutrition. The farmers will give back a percentage of the profits to help pay for equipment and supplies.

While acknowledging the many supporters and in-kind contributions for past trips, Duffy is now actively fund raising to continue the project.

"Rotary Chelmsford and Rotary International gave us \$27,000 for the summer trip and that was very significant support," he says. "Of course, every time we go, we come back with more requests. There's no end to the need."

—SS



▲ Clinic radios installed by the Peru Project are credited with saving many lives, as villagers can communicate with hospitals in the larger towns.



▲ Solar-powered computing is an instant hit at one of the village schools.

## TURI Recognizes Saint-Gobain Worcester Enviro. Practices

Saint-Gobain Worcester was recognized by the Toxics Use Reduction Institute (TURI) for best practices in recycling and energy conservation as part of the Institute's Cleaner Technologies Demonstration Site program. Saint-Gobain, one of the top 100 industrial companies in the world, demonstrated the company's extensive recycling program and an energy conservation project for managing dust collection (which also involves Massachusetts Electric) during a site tour.

Saint-Gobain Worcester is one of only five manufacturing facilities recently named charter members of the Environmental Stewardship Program of the Massachusetts Executive Office of Environmental Affairs. To

achieve this status, a company must be committed to continuous environmental improvement through an environmental management system. Each year, TURI chooses demonstration projects that show innovation techniques and technologies for reducing toxics and promoting environmental responsibility.



▲ The Toxics Use Reduction Institute (TURI) selected Saint-Gobain Worcester as a Cleaner Technologies Demonstration Site for its best practices in recycling and energy conservation. Representatives from Saint-Gobain demonstrated the company's best practices during a site tour of the Worcester facility. Taking part in the event were, from left, Tony Hoover, city manager, Worcester; Stephen A. Stockman, vice president, Saint-Gobain; and Kenneth Geiser, director, TURI.

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## Brooks Automation Selects UMass Lowell for Switch to C++

the UMass Lowell Division of Continuing Studies, and Corporate Education (CS/CE).

"The personalized student support services provided to Brooks employees by our corporate on-site training team is just another example of how we work with each company to fit the program to their needs," says Dean Jacqueline Moloney, CS/CE.

Switching to C++ will reduce Brooks' software development cycle times, increase code re-use and software quality. And by retraining experienced software engineers, Brooks may save money over the long-term.

"Brooks has already invested in developing people in their domain. These are talented engineers who understand the context. It's a much better decision to retrain people who have context

and experience," says Prof. William Moloney, UMass Lowell Computer Science Department. The non-credit courses are more specifically geared toward the company's application than the credit course offered by the department, enabling the students to use relevant examples.



▲ Administrators from Brooks Automation and UMass Lowell, who designed the C++ customized training program for 15 employees, gathered at the recent graduation ceremony. They include, back row from left, Prof. William Moloney, computer science; Prof. Thomas Costello, chair of computer science; Steven Wentzell, senior vice-president of human resources, Brooks; Dean Jacqueline Moloney, CS/CE; Tom Kristoff, director of development and training, Brooks; front row, Joanne Talty and Catherine Kendrick both of CS/CE.

# Mogan Center Seeks Proposals for Cultural and Environmental Projects and Scholar-in-the-City Program

**T**he Patrick J. Mogan Cultural Center is seeking proposals from individuals and organizations for cultural heritage and community environmental projects and programs that will be considered for funding by Lowell National Historical Park (LNHP). Proposals must relate to the mission of the center, which is to tell the human story of Lowell. The Mogan Center, a museum and research facility at 40 French Street in Lowell, is a program of LNHP in partnership with UMass Lowell.

Proposals will be reviewed and acted upon by the center's Community Committee, with the approval of LNHP. Applicants whose proposals are selected for funding and co-sponsorship will work closely with the National Park Service staff to ensure that their programs or projects benefit the community. Funding will not exceed \$2,500.

Among the programs and projects to be considered are: temporary exhibits at the Mogan Center or at other sites; neighborhood beautification efforts; cultural, artistic or ethnic fairs or festivals; lectures, readings or workshops; musical or theatrical performances; youth arts programs; educational programs; documentation projects; historical research with a public component; and environmental awareness programs.

The Mogan Center is also sponsoring a Scholar-in-the-City to support study in the areas of academic history, public history and folk-life as related to Lowell. Recognized as the nation's most important early industrial city, Lowell is the home of several important archival collections including those at Lowell National Historical Park, the American Textile History Museum, the Lowell Historical Society, and the University's Center for Lowell

History and the Pollard Memorial Library.

The scholar, selected in a competitive process, must complete the project before Sept. 30, 2004. Requirements include original historical/cultural research on a Lowell topic, the preparation of an original paper and a public presentation. The scholar, who will work with the professional staff of Lowell National Historical Park and UMass Lowell faculty and staff involved with the Mogan Center, will receive a stipend of \$2,500 upon the completion of his or her work.

The aim of the program is to develop new scholarship to strengthen the interpretation of Lowell's industrial and immigrant past and its present day sense of community. Potential topics of study might include waterpower, changes in the environment, technological innovation, capital and labor, women in the workforce, urban

politics, and the preservation of traditional cultures.

To apply for project support, send a one-page (250 to 400 words) project description, a summary of project personnel qualifications and a project budget. For consideration for the Scholar-in-the-City program, provide a resume or curriculum vita and a one-page project description. All materials should be sent to Mehmed Ali, Mogan Cultural Center Coordinator, Lowell National Historical Park, 67 Kirk Street, Lowell, MA 01852.

Proposals and support materials will not be returned, and awards are conditional upon National Park Service budget funding. The postmark deadline for submission of materials is Nov. 21. For more information, please contact Paul Marion, director of Community Relations, at x3107 or Ali at 978-275-1826 or mehmed\_ali@nps.gov

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## New 'Smart Bandage' Doubles Healing Rate of Wounds

In a laboratory setting, this membrane is called an "extra cellular matrix."

When cells are grown outside the body, they must synthesize a new matrix. Marx and Braunhut have devised a new way to separate the cell from the matrix in the laboratory, leaving the matrix intact.

"We know that when some cells synthesize this matrix, they enrich it with a wide spectrum of proteins, called growth factors, and these are designed to work in wound healing," Braunhut says.

There are three types of wounds, she explains: common lacerations, burns and venomous bites. Cells located at points of the body where wounds may occur, create and store these growth factors so they will be available immediately to treat a wound.

"The cell wants them ready-made—like an ambulance," she says.

She and Marx have "trained" the cells to make matrices packed with growth factors and then have removed the cells, isolating the matrices.

Different growth factors are suited for different kinds of wounds. Braunhut and Marx have learned how to release subsets of growth factors by applying a patented procedure through the matrix.

"Sue provides detailed cell biology knowledge and the methods of separating cells from the matrices," says Marx, "and my end relates more to measurements and the electrochemical setup in which we grow the cells and stimulate them to release the desired material."

The Smart Bandage would come with a small device equipped with a dial that would enable the user to select the right growth factor for the specific kind of wound—laceration, burn or bite.

"When they turn the dial, they activate the appropriate treatment for a very brief period of time," Braunhut says. "That would release the exact factor, and liquid would be released on the bandage and would, in turn, saturate the wound."

"It's a customized bandage, and we can demonstrate a 50 percent faster healing rate," she says.

The bandage also has applications for certain individuals—such as older people or diabetics—who have lost the ability to create healthy matrices.

The two researchers have been making presentations to biotechnical companies and "some big players in wound care," says Marx.

"It's all very promising," he says.

—JMcD

## Biology Department Holds First Research Retreat

**P**lanned as an annual event, the first Department of Biological Sciences Research Retreat gave an overview of department strengths and research opportunities to graduate and advanced undergraduate students.

Prof. Robert Lynch, chair, described molecular, cell and environmental biology and biochemistry as the department's areas of strength. Also, students who chose to try out for medical school have been very successful.

At the master's level, the biotechnology option is heavily subscribed. Students have the opportunity to pursue a Ph.D. in biochemistry (with the Chemistry Department), in biomedical engineering and biotechnology (in collaboration with the Boston

and Dartmouth campuses and the Worcester medical school) or in marine sciences (through the Inter-campus Graduate School of Marine Science and Technology).

Members of the faculty gave brief summaries of their research areas, encouraging students to pursue their interests and engage in research. A reception afterwards allowed for informal and lively discussion of the research opportunities.



▲ Assoc. Prof. Mark Hines, biological sciences, talks with students about research opportunities at the reception following the department's first annual research retreat.



## A Score for Diversity and Pluralism's First Meeting



◀ Prof. Anne Mulvey, psychology, left, opens the kick-off meeting of the Council on Diversity and Pluralism. At right is Rev. Imogene Stulken, campus ministry. Two dozen faculty and staff came together in September to discuss D & P initiatives for the coming year.

## Chomsky Speaks to Overflow Crowd



▲ Noam Chomsky, second from left, spoke on campus last month on "Democracy and the Politics of War." One sponsor of his talk was the Peace and Conflict Studies Institute, whose members include, from left, Prof. John MacDougall, Protestant Minister Imogene Stulken, Prof. Robert Gamache, and Asst. Prof. Daniel Egan.

## Empowering Youth for Social Change



◀ Lifetime peace and justice activist Barbara Hildt, who founded Youth Empowerment Services, recently visited with the Peace and Conflict Studies class of Prof. John MacDougall, left, to discuss her views on leadership for peaceable, social change.



▲ Chomsky's talk attracted an overflow crowd to O'Leary Library. More than 100 people watched him on closed circuit television from the hallway outside Room 222.

# Research Notes

**Avitabile, Peter**  
\$6,000  
**Spectral Dynamics**  
Technical Support for Basic Model Analysis Activities

**Avitabile, Peter**  
\$266,725  
**National Science Foundation**  
"Multi-semester Interwoven Problem for Teaching Basic Core STEM Material Critical to Solving Dynamic Systems Problems"

**Bobek, Leo**  
\$38,675  
**US Department of Energy**  
Reactor Equipment Upgrade

**Braunhut, Susan**  
\$250,000  
**DARPO/DSO**  
The Smart Bandage

**Brown, Gilbert**  
\$22,000  
**U.S. Department of Energy**  
DOE/Industry Matching Grant Program

**Chiang, Long**  
\$80,000  
**AFSOR**  
Synthesis and Study of Fullerene-based Photovoltaic and Two-photon Absorptive Conjugate Materials

**Crumbley, Cathy**  
\$15,000  
**John Merck Fund**  
Technical and Policy Assistance Work for Alliance for a Healthy Tomorrow

**Crumbley, Cathy**  
\$15,000  
**Commonwealth of Massachusetts**  
Department of Environmental Protection Municipal Waste Combustors and Dioxin Emissions

**Donahue, Matthew**  
\$15,000  
**Massachusetts Department of Environmental Protection**  
Municipal Stewardship Training and Measurement Program

**Ellenbecker, Michael**  
\$185,200  
**Center for Disease Control**  
Occupational Health & Safety Training Grants

**Galkin, Ivan**  
\$50,000  
**NASA Goddard Space Flight Center**  
Automated Analysis of Space Plasma Wave Data Using Intelligent System Techniques

**Greenwood, Anita**  
\$41,000  
**Massachusetts Board of Higher Education**  
Science Teacher Enhancement Program for Urban Professionals

**Heines, Jesse**  
\$5,000  
**Association for Computing Machinery**  
Student Program Documentation Analysis and Feedback

**Hellstedt, Jon**  
\$73,700  
**NYSC**  
2003 National Youth Sports Program

**Hellstedt, Jon**  
\$49,633  
**Commonwealth of Massachusetts**  
Summer Food Service Program

**Hulbert, Kathleen**  
\$24,348  
**Federal Prison Camp Allenwood**  
Project Voice

**Kazmer, David O.**  
\$40,000  
**Mold-Masters Limited**  
Introduction to Decoupled Gating for Injection Molding

**Kegel, Gunter**  
\$10,000  
**PPG Industries**  
Radiation Damage Studies of Steel Coupons

**Kegel, Gunter**  
\$94,590  
**Omnirel Corporation**  
Irradiation of Electric Devices

**Kostar, Timothy**  
\$6,945  
**Foster-Miller Inc.**  
Enhancement of a 3D Cartesian Braiding Process Simulation, Unit Cell Identification and Data Formatting

**Kriebel, David**  
\$15,000  
**Commonwealth of Massachusetts**  
Protection Municipal Waste Combustors and Dioxin Emissions

**Kumar, Jayant**  
\$30,000  
**NSF**  
Collaborative Proposal: Development and Characterization of Conjugated Polymer Films Suitable for Photovoltaic Devices

# Tsongas Center Teaches Hands-on History and Science to Teachers

This summer, middle school teachers went back to school at the Tsongas Industrial History Center for an intensive, eight-day Department of Education Content Institute on "Individualism, Industrialization and Impacts on the Environment." The grant-funded institute was one of only 10 concentrating on science and technology curriculum frameworks in the state.

Tsongas Center staff members Dr. Beverly Perna and Dr. Timothy LaVallee directed the program that included lectures, visits to explore the resources of the Lowell National Historical Park and hands-on experiences about the economics, innovations, and environmental impacts of the Industrial Revolution.



▲ Ben Prokuski, former vice president of the Waumbec Mills in Manchester, NH, and 94-year-old volunteer for the Lowell National Park, shows the workings of a loom to Wilmington middle school teacher Timalie Fascione. Prokuski was named volunteer of the year for the Northeast region of the National Park Service.

From UMass Lowell, Asst. Prof. Chad Montrie, history, engaged the teachers in investigations of the history of labor unions, Frederick Taylor's ideas on "scientific management," urban environmental reform and industrial

hygiene. Prof. Arnold O'Brien, environmental, earth and atmospheric sciences, led the group on a field trip of significant geologic sites in the Merrimack Valley.

Merritt Roe Smith, professor of history of technology at the Massachusetts Institute of Technology and co-author of *Inventing America*, for which he wrote an extensive section on Lowell, helped teachers put Lowell in a global perspective.

Teachers became familiar with Tsongas Center curriculum materials and hands-on workshops for students that could be used in their own classrooms and in planning field trips.



▲ Prof. Arnold O'Brien, chair of the Department of Environment, Earth and Atmospheric Sciences, describes the glacial features of the Merrimack Valley watershed to participants in the Department of Education Content Institute led this summer by the Tsongas Industrial History Center.



▲ David Norman, a technology teacher at the Lawrence Family Development Charter School, tried out some hands-on learning at the "Individualism, Industrialization and Impacts on the Environment" that concentrated on science and technology curriculum frameworks in the state.

## Baake Presents Plans for City's Future



▲ Adam Baacke, left, the chief planner for the City of Lowell, spoke recently to Prof. Clare Comm's Marketing Tactics course. Comm's class will be conducting a survey of students, faculty and staff, examining the University's economic impact on the city.

## CIC Series Opens with Fine Work



▲ Prof. Bill Mass, left, coordinator of the Center for Industrial Competitiveness' (CIC) Fall Seminar Series, presents Janice Fine who was the series' opening speaker. Fine was the principal investigator for a research project on immigrant worker centers at the Economic Policy Institute. Fine discussed her view that the future of the American labor movement is bound to its ability to tap into community organizing. Her appearance was sponsored by the Center for Family, Work, and Community; the Center for Women and Work; and the Dept. of Regional Economic and Social Development.

## Ginsberg Photos Focus of University Gallery Exhibit

An unusual offering, an exhibit of photographs by and of Beat writer Allen Ginsberg (1926-97)—timed to coincide with UMass Lowell's Jack Kerouac Conference on Beat Literature, as well as the Lowell Celebrates Kerouac! Festival—is currently on display in the University Gallery, where it will remain through Nov. 7.

The collection covers a span of 40 years, from the early '50s through the early '90s, and captures both the spirit and energy of the Beat generation. The candid snapshots offer a behind-the-scenes glimpse of several legendary personalities of the era, including Kerouac, Lawrence Ferlinghetti, William

Burroughs, Robert Frank, Gregory Corso and others.

All University Gallery events are free and open to the public. The gallery is on the first floor of the McGauvran Student Center, 71 Wilder Street. Hours are Wednesday through Friday, noon to 3 p.m., Saturday 1 to 4.



▲ Robert Frank photographing Allen Ginsberg prior to publication of Ginsberg's *Collected Poems* in 1984. This photo will be among many on display at the University Gallery through Nov.



# Postdoctoral Fellow Climbs to the Top of 'America's Roof'

**K**ate Vorotnikova and her friends intended to go directly to the West Rib and climb that route to the top of 20,320-foot Mt. McKinley.

But the ranger advised against it because the weather was bad. So they made an ascent to the top along the "easier" West Buttress route instead, where the wind was blowing 40 to 50 miles an hour and the temperature was 25 degrees below zero.

Vorotnikova is a postdoctoral fellow in cell biology in the Biological Sciences Department. A graduate of Moscow University, she and her husband, Sergei, and their three children came to this country three years ago.

Vorotnikova had gotten into climbing when she joined a mountaineering club while at Moscow University. Once in this country, she says she and her family found many "rocks" to climb in the New Hampshire area.

It was in June of this year that she and six Russian friends traveled to Alaska and climbed Mt. McKinley. After arriving in Talkeetna, Alaska, they flew 150 miles to their base camp at the mountain aboard small planes equipped with skis.

After making the ascent on the West Buttress route, the weather improved and Vorotnikova and three others in her group were able to

tackle the much more difficult West Rib. This route is known as a "technical" climb because it involves very steep ascents over rock, ice and snow, and requires the use of ice screws, pitons, rope and other specialized equipment.

During the climbing season—May through July—913 climbers attempted the West Buttress ascent but only 495, or 61 percent, made it to the summit. On the technical climb up the West Rib, 27 out of 79 climbers, or 35 percent, succeeded in reaching "America's Roof."

Vorotnikova and her friends made it to the top in six days, two of which she says were sunny and warm. On the final leg, it took them 14 hours to reach the summit and return to their last camp.

"We were very tired. The snow was deep and it was a very tough climb," she says.

The next day, the seventh, they descended via the West Buttress route in 17 hours.

Mountain climbing obviously runs in the family. The Vorotnikovas' 16-year-old son and 13-year-old daughter each have won national climbing events in youth competition.

—JMcD

## University Night at Boarding House Park Proves Legendary



▲ John Murphy, physical plant, left, enjoys the first UMass Lowell Night at Boarding House Park, with, from left, his sister and brother-in-law Cathy and Al Sexton, and his wife Nancy. More than 150 staff members and their friends enjoyed a reception and performance of Early Clover's "Tribute to the Legends," which paid tribute to the music of Marvin Gaye, Otis Redding and Sam Cooke.



◀ Profs. Ann Marie Hurley, mathematical sciences, and Kathleen Doyle, health and clinical sciences, attended the pre-show reception at UMass Lowell Night at Boarding House Park in downtown Lowell on Sept. 5. Since 1993, the University has been a major partner of the Lowell Summer Music Series, which is held at the park from July through September.

Continued from Back Page

## Calendar of Events

### Monday, Nov. 3

**Performance**, STARTS program, "The Star Keeper," performing arts for grades K-3, 9:30 and 11:30 a.m. Tickets: \$5. Durgin Concert Hall. For information and reservations, call the STARTS hotline (978) 934-4452.

**Seminar Series**, "Working on the Edge: The Lives of IT Professionals," Paula Rayman, RESD, noon to 2 p.m., O'Leary Library, Room M, 5th floor. For information, call RESD (978) 934-2900.

**Faculty Senate Meeting**, 3:30 p.m., Alumni Lounge. For more information, contact AnnMarie\_Hurley@uml.edu.

### Thursday, Nov. 6

**Lecture**, "Obscenity, Birth Control, and the Comstock Law," presented by Smith College Sydenham Clark Parsons Prof. Helen Horowitz, 7 p.m., O'Leary Library 222. For more information contact (978) 934-4275 or chad\_montrie@uml.edu.

### Friday, Nov. 7

**Conference**, "15th Lowell Conference on Women's History," explores the significance of gender throughout American history, includes large-group presentations and small-group interactive workshops, Tsongas Industrial History Center, Boott Cotton Mills. To receive a brochure and registration form, email Ellen\_Anstey@uml.edu or visit: <http://www.uml.edu/tsongas/calendar.htm>

### Sunday, Nov. 9

**Parker Lecture**, "Betsey Chamberlain: Native American Mill Worker," slide-presentation that explores the life and writings of a Lowell "mill girl," 2 p.m., Lowell National Historical Park Visitor Center, 256 Market Street. For information or a schedule, contact (978) 934-3107 or Paul\_Marion@uml.edu.



▲ Kate Vorotnikova, a postdoctoral fellow in the University's Biological Sciences Department, climbed Mt. McKinley this summer over the difficult Western Rib route.

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## Pyle Presents at Two 2003 Conferences

**P**rofessor Emerita Jean L. Pyle, a senior associate at the Center for Women and Work and a member of the Department of Regional Economic and Social Development (RESO), was the presenter at two recent professional conferences.

The first, "From 9 to 5 to 24/7: How Work-place Changes Impact Families, Work and Communities," a conference sponsored by the Business and Professional Women's Foundation at the Women's Studies Research Center at Brandeis University in Florida, featured Pyle as co-presen-



▲ Professor Emerita Jean L. Pyle

ter of a paper, "Family and Medical Leave Act: Unresolved Issues." The paper's co-author, Marianne Pelletier, is a master's student at RESO.

She presented a second paper, "An Alternative View of the Effects of Globalization: an Increase of Women in Sex, Domestic, and Export-Processing Work," at an international conference, "Towards a

Critical Globalization Studies: Continued Debates, New Directions and Neglected Topics," at the University of California at Santa Barbara. This conference was co-hosted by UC-Santa Barbara and the Global Studies Association.

## Note Worthy

**Prof. John MacDougall**, regional economic and social development, recently co-edited, *Teaching the Sociology of Peace, War & Social Conflict: A Curriculum Guide* with Morten G. Ender of the United States Military Academy. The guide is an international collection of essays, syllabi and other resources that explore a range of topics from cinematic images of war to the sociology of terrorism. The American Sociological Association published the guide.

Director of Community Service and Sociology Department faculty member **Mark Levine's** article

"Service Learning in the Shelters of Lowell: Who Benefits?" was published in a recent issue of *Spare Change News*, a newspaper published by the Homeless Empowerment Project in Cambridge. The paper is sold by the Boston and Cambridge homeless, who keep 75 percent of the earnings. Levine writes on his experiential course's "old John Dewey blend of experience and education which raises value questions and urges students toward a later life of caring and sharing the commonwealth."

## Roehr Has Designs on the Repertory Theatre

**U**Mass Lowell Art Prof. Karen Roehr is about to play a major role before every patron of Lowell's Merrimack Repertory Theatre, yet she'll never take the stage.

This year, Roehr was brought on board to serve as MRT's Art Director/Designer, designing every promotional piece for all shows in its 25th season, from playbills to brochures to posters. She even suggested and created a bookmark highlighting the season's seven plays to appeal to avid readers who may be less familiar with live theatre.

Roehr says the process of putting together pieces for a whole season requires extensive knowledge of each play to be produced in order to create the look of a unified whole.

"Artistic Director Charles Towers told me he wanted the season to look contemporary, fresh and to have some cohesion," says Roehr. "Each play is kind of branded."

The season includes a varied selection of works, from "Rounding Third," a rousing comedy about little league baseball by Richard Dresser, to Rebecca Gilman's "Boy Gets Girl," Roehr's favorite, about a young career woman's struggle against a stalker.

Each play presents its own graphic design challenges, which are compounded by the need to bring them altogether in a unified whole. Roehr collaborated with Lowell



▲ Prof. Karen Roehr, art, displays the design work she did for Merrimack Repertory Theatre's 25th season. Roehr designed brochures, playbills, show cards and bookmarks for the entire season.

photographer Meghan Kriegel to capture compelling images for each piece that worked collectively as well.

"You have to think about each play as a unique piece," says Roehr, "and then how they are going to work together as a season."

Hearing Roehr describe the process of creating each image, one realizes that each piece is a work of art in its own right. The poster for "Boy Gets Girl," for example, is dominated by a man's silhouette looming behind a woman. Roehr chose the shadow as a fresh way to represent a stalker, and suggested the objectification of the female figure by showing only her pump-clad foot.

Sometimes unforeseen events intervene in the design process. For instance, the lead actor in James Still's "Looking Over the President's Shoulder" passed away unexpectedly this summer. Not only was it a sad occurrence, but Roehr needed to alter her concept for the related promotional materials.

Having only just recently become familiar with the organization, Roehr has become quite a fan of MRT. She encourages other faculty to bring classes to a performance, noting the inexpensive group rates.

"As it is, an individual can get a season ticket for as little as eighteen dollars a play," says Roehr.

In the long run, Roehr, now in her third year at the University, hopes that her relationship with MRT will encourage them to look to UMass Lowell for student interns. One graphic design student is performing an internship with the theatre.

For information, visit [www.merrimackrep.org](http://www.merrimackrep.org), or call (978) 454-3926.



▲ Prof. Karen Roehr, art, provided the design for all of the printed material used to promote the plays at MRT this year, including her favorite for "Boy Gets Girl" which opens at the theatre in October. Roehr, or rather her foot, made a cameo on this poster.

## Promotions & Appointments

### Promotions

**Denise M. Anastasopoulos**, procurement and budget analyst in Procurement, from accountant III.

**Laura M. Edwards**, student exchange visitor information specialist in the Graduate School, from staff assistant.

**Brenda I. Evans**, director of multicultural affairs in Student Life, from associate director.

**Patricia A. Vaillancourt**, assistant to the director of procurement in Procurement, from assistant to the director of purchasing.

### Appointments

**Christopher Avey**, University police officer, from Massachusetts Criminal Justice Training Council in Boylston.

**Elaine Donnelly**, associate project manager, enrichment programs in the Research Foundation, from educational coordinator for GearUp at Middlesex Community College.

**Glenn A. MacDonald**, safety specialist in Environmental Health and Safety, from manager of environmental health and safety at Freudenberg Nonwovens of Lowell.

**Marcia C. Pauli**, parent liaison in the GearUp Project, from GearUp instructor.

# Calendar of Events

## Wednesday, Oct. 8

**Exhibit Reception,** Alumni Photography Exhibition, 2 to 4 p.m., Dugan Gallery, Dugan Hall, runs through Oct. 29. For more information, call (978) 934-3491.

## Friday, Oct. 10

**Performance,** STARTS (Student & Teacher Arts) program, "Aesop's Fables," performing arts for grades K-3, 9:30 and 11 a.m. Tickets: \$5. Durgin Concert Hall. For information and reservations, call the STARTS hotline (978) 934-4452.

**Baseball,** vs. Brandeis University, noon, LeLacheur Park. For more information, call (978) 934-HAWK.

## Saturday, Oct. 11

**Field Hockey,** vs. Stonehill College, 1 p.m., Cushing Field. For more information, call (978) 934-HAWK.

**Men's Soccer,** vs. Bryant College, 2:30 p.m., Cushing Field. For more information, call (978) 934-HAWK.

**Hockey,** vs. UMass Amherst, 7 p.m., Tsongas Arena. For more information, call (978) 934-HAWK.

## Tuesday, Oct. 14

**Field Hockey,** vs. So. Connecticut State University, 7 p.m., Cushing Field. For more information, call (978) 934-HAWK.

## Wednesday, Oct. 15

**Seminar Series,** "Teens at Risk: Reducing Workplace Hazards," Joan Parker (Parkwood Consulting), David Wegman & John Wooding (UML), buffet lunch served, noon to 2 p.m., O'Leary Library, Room M, 5th floor. For information, call RESD (978) 934-2900.

**Men's Soccer,** vs. Assumption College, 7 p.m., Cushing Field. For more information, call (978) 934-HAWK.

## Thursday, Oct. 16

**Field Hockey,** vs. St. Anselm College, 7 p.m., Cushing Field. For more information, call (978) 934-HAWK.

**Performance,** Faculty Concert Series, Dr. Richard Strasser and Prof. Anthony Mele, 7:30 p.m., Fisher Recital Hall. For information, call (978) 934-3850.

## Friday, Oct. 17

**Performance,** STARTS program, "The Summer of the Swans," performing arts for grades 3-6, 9:30 and 11:30 a.m. Tickets: \$5. Durgin Concert Hall. For information and reservations, call the STARTS hotline (978) 934-4452.

## Saturday, Oct. 18

**Parker Lecture Series,** "Stress Relief Techniques," with Chris Connelly, registered nurse with the Lowell Health Dept., 2 p.m., Pollard Memorial Library, 410 Merrimack St. For information or a schedule, contact (978) 934-3107 or Paul\_Marion@uml.edu.

## Sunday, Oct. 19

**Parker Lecture**, "Amazing Thailand," by Mike Shiley. Travel film that explores Thailand by raft and on elephant, 2 p.m., Lowell High School Auditorium, 50 Fr. Morrisette Blvd. For information or a schedule, contact (978) 934-3107 or Paul\_Marion@uml.edu.

**Performance,** Ensemble Series, combined choral groups, Dr. Christopher McGahan, director, 4 p.m., Durgin Concert Hall. For information, call (978) 934-3850.

## Monday, Oct. 20

**Seminar Series,** "Policy, Practice, and System Reform: Youth in Transition," Talmira Hill, T. L. Hill Group, buffet lunch served, noon to 2 p.m. O'Leary Library, Room M, 5th floor. For information, call RESD (978) 934-2900.

**Parker Lecture Series,** "Famous Long Ago: Eyewitness of the Sixties," by counterculture writer Ray Mungo, chronicles the decade when "student power" and the press helped end an

unpopular war and unseat a president, 7 p.m., O'Leary Library. For information or a schedule, contact (978) 934-3107 or Paul\_Marion@uml.edu.

## Tuesday, Oct. 21

**Performance,** STARTS program, "The Mystery of King Tut," performing arts for grades 4-6, 9:30 and 11:30 a.m. Tickets: \$5. Durgin Concert Hall. For information and reservations, call the STARTS hotline (978) 934-4452.

**Forum,** "Housing and Homelessness: Policy and Vision," featuring State Senator Steve Panagiotakis and Fran Czajkowski, exec. director of the Homeless Empowerment Project, 12:30 to 2:30 p.m., Coburn 205. For information, call Mark Levine (978) 934-3219.

**Performance,** Graduate Student Recital Series, Ekrem Hamzic, piano, 7:30 p.m., Fisher Recital Hall. For information, call (978) 934-3850.

## Thursday and Friday, Oct. 23 & 24

**CITA Conference,** "Education for Sustainable Development," features reports and discussions from various scholars and community activists, presented by the Committee on Industrial Theory and Assessment (CITA). For information or to register, visit [www.uml.edu/com/CITA/](http://www.uml.edu/com/CITA/), or contact Prof. Farrant at [rfarrant@external.umass.edu](mailto:rfarrant@external.umass.edu).

## Saturday, Oct. 25

**Parker Lecture Series,** "Alabanza: A Latino Poet's Journey," by Martin Espada, featuring poetry that explores the author's Puerto Rican heritage, 2 p.m., Pollard Memorial Library, 410 Merrimack St. For information or a schedule, contact

(978) 934-3107 or Paul\_Marion@uml.edu.

**Men's Soccer,** vs. College of St. Rose, 4:30 p.m., Cushing Field. For more information, call (978) 934-HAWK.

## Sunday, Oct. 26

**Open House,** 9 a.m., Tsongas Arena.

**Parker Lecture Series,** "Unearthing a Lost Biography," by Dr. Mary C. Beaudry, explores the lives of 19th century city dwellers, who took advantage of the urban environment to survive and prosper, 2 p.m., Lowell National Historical Park, 256 Market Street. For information or a schedule, contact (978) 934-3107 or Paul\_Marion@uml.edu.

## Monday, Oct. 27

**Seminar Series,** "Lowell's Industrial Regeneration: Dynamic Technological Capabilities," Michael Best, College of Management, UML, buffet lunch served, noon to 2 p.m., O'Leary Library, Room M, 5th floor. For information, call RESD (978) 934-2900.

**Performance,** Ensemble Series, wind, Prof. David Martins, director, 7:30 p.m., Durgin Concert Hall. For information, call (978) 934-3850.

## Tuesday, Oct. 28

**Film and Discussion,** "The Flute Player," award-winning PBS film about Cambodian Killing Fields survivor and musician Arn Chorn-Pond. Chorn-Pond and filmmaker Jocelyn Glatzer will take part in a post-viewing discussion, 7 to 8:30 p.m., O'Leary Library 222. For more information call (978) 934-3233.

## Wednesday, Oct. 29

**Men's Soccer,** vs. St. Anselm College 6 p.m. Cushing Field. For more information, call (978) 934-HAWK.

## Thursday, Oct. 30

**Performance,** Ensemble Series, chamber orchestra, Dr. Kay George Roberts, director, 7:30 p.m., Durgin Concert Hall. For information, call (978) 934-3850.

## Saturday, Nov. 1

**Hockey,** vs. Northeastern University, 7 p.m., Tsongas Arena. For more information, call (978) 934-HAWK.

## Sunday, Nov. 2

**Performance,** Discovery Series, "The Star Keeper," 2 and 4 p.m. Best for ages 4-10. Tickets \$10, group discounts available, Durgin Concert Hall. For information or tickets, call the Center for the Arts (978) 934-4444.

*Continued on Page 8*

## Did you know...

that during the 1920s, the faculty of UML predecessor, Lowell Teacher's College, were expected to perform at the morning assembly?

## For Extra Credit...

What were some of their daily routines?

Faculty members would dazzle audiences with tales of travel, musical performances and scientific reports.



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